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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/695,531 | 10/23/2000 | Thomas T. Yamashita | YAMA-008 | 3483 |

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EXAMINER

GELLNER, JEFFREY L

| ART UNIT | PAPER NUMBER |
|----------|--------------|
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3643

DATE MAILED: 01/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/695,531

Applicant(s)

YAMASHITA, THOMAS T.

Examiner

Jeffrey L. Gellner

Art Unit

3643

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-8,10-15 and 17-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-8,10-15 and 17-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- 1) ☐ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. §102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3-8, 10-15, 17-19, and 21 are rejected under 35 U.S.C. §102(b) as being anticipated by Muir (US 4,952,229).

As to Claim 1, Muir discloses a composition comprising a plurality of distinct microbial species (table at col. 3 and col. 4) comprising *B. subtilis* (col. 4 1st bacterium listed) and *B. thuringiensis* (col. 3 last line), wherein each member has been proliferated on a complex substrate (“standard microbial fermentation techniques” of col. 3 lines 54 and 55).

As to Claim 3, Muir further discloses 5 distinct microbial species (table at col. 4).

As to Claim 4, Muir further discloses 5 distinct bacterial species (table at col. 4).

As to Claim 5, Muir further discloses 2 distinct fungal species (col. 5 table at top of col.).

As to Claims 6 and 7, Muir further discloses a liquid carrier (“water” of col. 9 line 66).

As to Claim 8, Muir further discloses a solid carrier (“diatomaceous earth” of col. 3 lines 56-60).

As to Claim 13, Muir further discloses applying to soil or plant (col. 2 lines 30-32).

As to Claims 10 and 11, Muir discloses a composition comprising a plurality of distinct microbial species (table at col. 3 and col. 4) made up of at least 5 different bacterial species

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(tables on Col. 3 and col. 4) and at least 2 different fungal species (table on col. 5), wherein each member is antagonistic against a plurality of microbial pathogens (“provides much more positive pathogen suppression” of col. 3 lines 52-53); non-pathogenic towards plants and animals (“greatly improves the plant performance” of col. 3 lines 50-53); tolerant of high temperatures (inherent in that any microbe used as a soil adjuvant is tolerant to high temperatures since soils reach these temperatures); grows rapidly (col. 5 lines 20-22); and has been proliferated on a complex substrate (“standard microbial fermentation techniques” of col. 3 lines 54-55); and, a liquid carrier (“water” of col. 9 line 66).

As to Claim 12, Muir further discloses a solid carrier (“diatomaceous earth” of col. 3 lines 56-60).

As to Claim 14, Muir discloses a composition comprising a plurality of distinct microbial species (table at col. 3 and col. 4) comprising *B. subtilis* (col. 4 1st bacterium listed) and *B. thuringiensis* (col. 3 last line), wherein each member is antagonistic against a plurality of microbial pathogens (“provides much more positive pathogen suppression” of col. 3 lines 52-53); non-pathogenic towards plants and animals (“greatly improves the plant performance” of col. 3 lines 50-53); tolerant of high temperatures (inherent in that any microbe used as a soil adjuvant is tolerant to high temperatures since soils reach these temperatures); grows rapidly (col. 5 lines 20-22); and has been proliferated on a complex substrate (“standard microbial fermentation techniques” of col. 3 lines 54-55); and combined (“standard microbial fermentation techniques” of col. 3 lines 54-55). The composition of Muir inherently performs the method steps recited in Claim 14.

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As to Claim 15, Muir further discloses separately proliferating the species ("additional microbes can be added to" of col. 4 lines 19-21).

As to Claims 17 and 18, Muir further discloses a liquid carrier ("water" of col. 9 line 66).

As to Claim 19, Muir further discloses a solid carrier ("diatomaceous earth" of col. 3 lines 56-60).

As to Claim 21, Muir further discloses 1 distinct fungal species (col. 5 table at top of col.).

Claim Rejections - 35 USC §103

The following is a quotation of 35 U.S.C. §103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 20 is rejected under 35 U.S.C. §103(a) as being unpatentable over Muir (US 4,952,229).

As to Claim 20, the limitations of Claim 14 are disclosed as described above. Not disclosed is identifying candidate microbial species by a series of assays which identify the species to characteristics (i)-(v). Examiner takes official notice that it old and notoriously well known in the biological sciences to test with assays so as to derive information on traits and characteristics of biological entities, such as microbes, before addition to a composition. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the method of Muir by identifying species with assays so as to select a special multi-component

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- . composition such that a potent, compatible, and highly active bioculture results (see Muir at col. 5 lines 20-26).

Response to Arguments

Applicant's arguments with respect to claims 1, 3-8, 10-15, 17-21 have been considered but are moot in view of the new ground(s) of rejection.


Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Lee discloses in the art a microbial composition as a soil adjuvant.

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Jeffrey L. Gellner whose phone number is 703.305.0053. The Examiner can normally be reached Monday through Thursday from 8:30 am to 4:00 pm. The Examiner can also be reached on alternate Fridays.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's Supervisor, Peter Poon, can be reached at 703.308.2574. The official fax telephone number for the Technology Center where this application or proceeding is assigned is 703.872.9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703.308.1113.



Jeffrey L. Gellner